

SEALED-AIR THINGS

WAYNE, N. J. WAYN

J. WA

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**SEALED AIR CORPORATION**

179 Goffle Road • Hawthorne, New Jersey 07506 • (201) 427-7534



T. NELSON  
BOX 1546  
POUGHKEEPSIE, N. Y. 12603

SYST. CONST.

**HERE IS THE INFORMATION YOU REQUESTED**

POSTMASTER: This parcel may be opened for postal inspection if necessary. Return postage guaranteed.

THIRD CLASS

**SEALED AIR CORP.**

179 GOFFLE ROAD

HAWTHORNE, NEW JERSEY

**AirCap**

**C-120**



**SEALED AIR CORP.**  
179 GOFFLE ROAD  
HAWTHORNE, NEW JERSEY

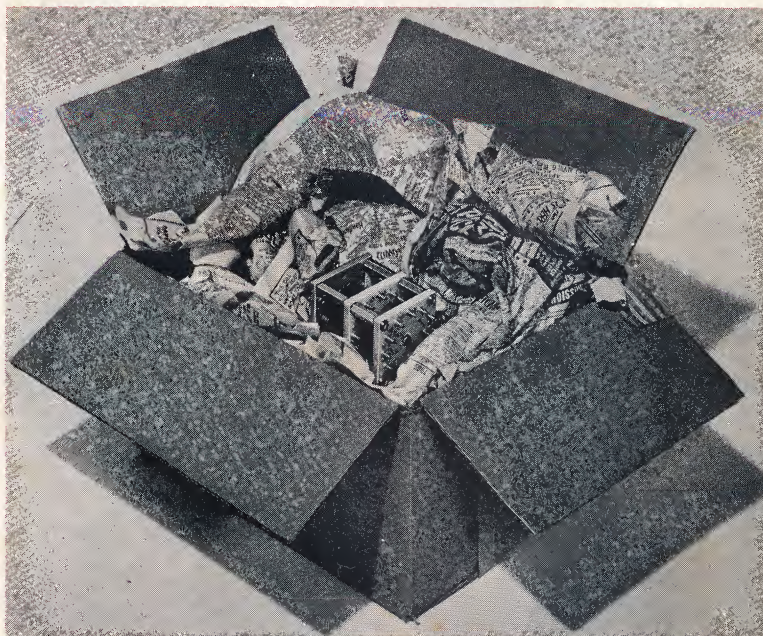
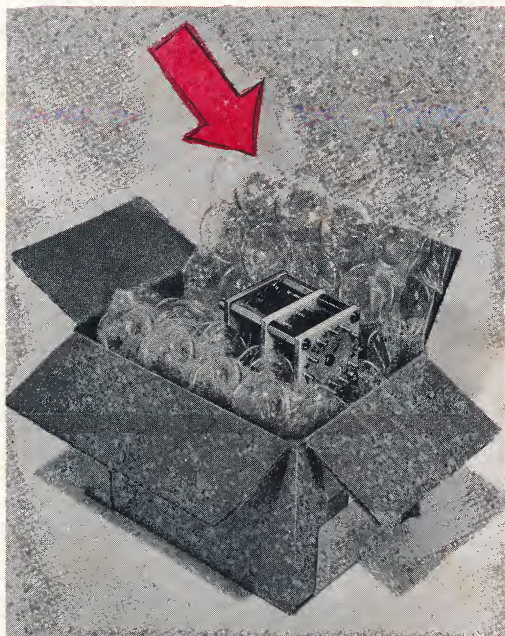
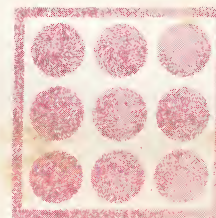
**AirCap**

**D-240**



# AirCap / abilities

SEALED AIR CORPORATION / 179 GOFFLE RD., HAWTHORNE, N. J. 07506 • (201) 427-7534



Cross-country shipping cost: Cross-country shipping cost:

**29<sup>c</sup>**

**89<sup>c</sup>**

*The Difference is **AirCap<sup>®</sup>** Cushioning!*

AirCap cushioning is air bubbles sealed in film. It cushions instruments, glass, or anything breakable, 10 times better, yet costs 1/2 as much to use as ordinary cushioning. Here's a comparison with used newsprint:

	<b>AirCap</b>	<b>Used Newsprint</b>
Cost of cushioning	1 sq. ft. ....\$ .04	(negligible) \$ .00
Cost of carton	5"x3"x3" ..... .06	9"x7"x5" ..... .10
Labor @ \$1.80/hr.	.01	.07
Postage	9 oz. .... .18	1½ lbs. .... .72
	<b>Total .....\$ .29</b>	<b>Total .....\$ .89</b>



A guide to packaging with

# AirCap®

The new packaging  
material that cushions  
with air.

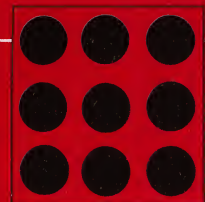
Reduces packaging costs,  
shipping weight,  
package size,  
breakage.



AirCap types C and D  
meet the requirements of  
Military Specification  
MIL-C-81013

Sealed Air Corporation

179 Goffle Road/Hawthorne, New Jersey





AirCap is a new packaging and cushioning material made of bubbles of air sealed between two sheets of Saran-coated polyethylene film.

# AirCap®

AirCap is distinguished by the number of important packaging characteristics it embodies. Each cell, or bubble, is a miniature pneumatic cushion. There are different types of AirCap to meet your requirements. The shape of the cells, their size, and the thickness of the film determine the type of AirCap best suited for your packaging needs.

## AirCap type code

The capital letter or letters in the type code designate the thickness of the AirCap type and

the shape of the cells. The numerical second half of the type code designates the thickness of the film. As for example:

### C-120

C—identifies cylindrical cells,  $\frac{3}{8}$ " in height.

120—means that this AirCap is made from a 1 and 2 mil film lamination.

AirCap Type "C"—cells are Cylindrical,  $\frac{3}{8}$ " in height and  $\frac{3}{8}$ " in diameter.



AirCap Type "TH"—cells are Truncated Hemispheres  $\frac{1}{4}$ " in height and 1" in diameter.



AirCap Type "D"—cells are Dome shaped,  $\frac{1}{2}$ " in height and  $1\frac{1}{4}$ " in diameter.



AirCap Type "B" cells are Cylindrical,  $\frac{1}{8}$ " in height and  $\frac{3}{8}$ " in diameter.

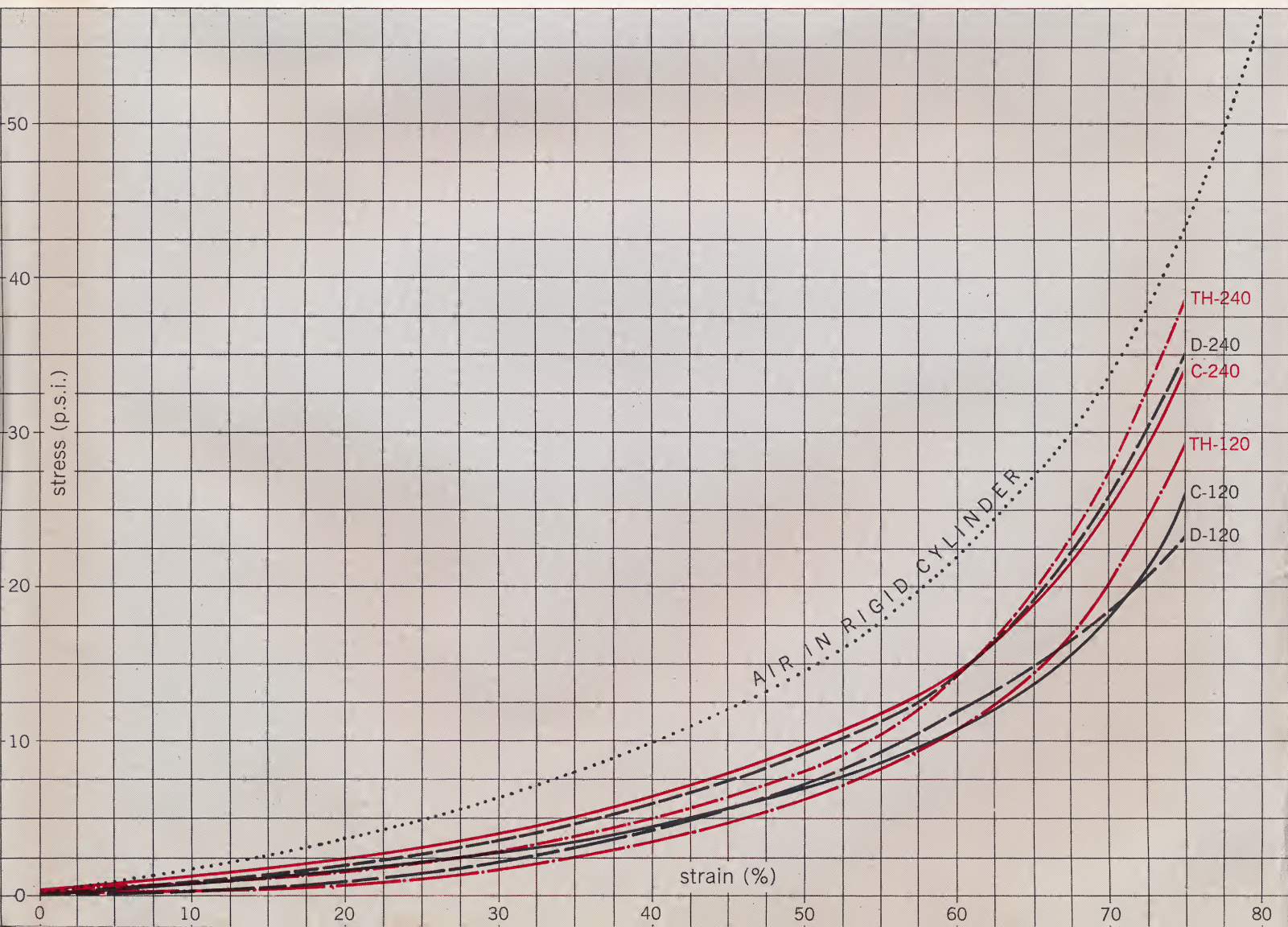


Most AirCap types are offered in two film gauge combinations. The numbers used in the code identify the combinations of film gauges. 120 indicates the lighter weight material, a lamination of one and two mil films. 240 indicates the heavier type, a lamination of two and four mil films.

## Cushioning characteristics

The miniature pneumatic cells give AirCap an especially high capacity for shock absorption. Time and again it has been

## Stress-strain curves for AirCap materials





**AirCap is:** shock absorbent...light weight...durable...lint free...

proved that the amount of space needed for interior cushioning can be reduced while retaining the same level of shock protection for your product. AirCap does not crush or take a "set". It has more complete recovery than other cushioning materials. (See Chart I) When you package with AirCap, your product is tightly packaged when you pack it, and it is also tightly packaged when your customer receives it—despite rough handling in shipping. Less AirCap is required than of competitive materials and smaller boxes may be used—a dual saving.

#### **Lightness**

AirCap weighs from  $\frac{1}{2}$  to 2 pounds per cubic foot, a fraction of the weight of other cushioning materials. The use of AirCap will reduce your shipping costs by reducing the weight of your packages. These costs, though often overlooked, can be substantial, especially when shipping by air or parcel post.

#### **Durability**

AirCap has "staying power". The Saran-coated polyethylene, a unique material in itself, insures that under recommended loadings, the air will remain in the cells almost indefinitely (See Chart II). Package your products in AirCap, store them on your own or on your distributors' shelves and ship them to their ultimate destination without fear that the protective qualities of AirCap will be lost through repeated handling or the simple passage of time.

#### **Dusting and lint-free properties**

Another important advantage gained by virtue of being made from plastic film is AirCap's

cleanliness. Critical tolerances of cleanliness, which are becoming of greater importance in the electronic and aerospace industries, enhance the value of AirCap. With the advent of AirCap it is no longer necessary to package products in polyethylene bags for protection from dust-generating cushioning materials.

#### **Flexibility**

The flexibility of AirCap is one of its greatest assets. AirCap can be mashed, mauled and twisted. It can be squeezed into the corner container; it can be formed around the most irregular shape—and it will retain all of the shock absorbing qualities necessary to protect your product. Low temperature testing, conducted in conjunction with the preparation of Military standards, showed that AirCap retained its flexibility down to  $-20^{\circ}$  F. Polyethylene itself retains its softness and flexible character down to  $-72^{\circ}$  F.



#### **Fabrication**

AirCap can be cut into useful shapes by any sharp instrument.

#### **Heat sealability**

AirCap can be heat sealed to itself to form bags and pouches. It is successfully being run on standard high speed automatic pouch machines. NOTE: Higher

than normal sealing temperatures are required due to the Saran coating of AirCap.

#### **Die cutting**

AirCap in all types can be die cut cleanly on inexpensive steel rule dies.

#### **Hot wire cutting**

The thermoplastic nature of polyethylene allows it to be cut with a taut hot wire. Single or multiple wires can be used to cut various configurations.

#### **Adhesives**



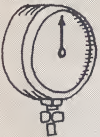


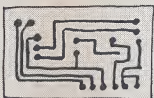
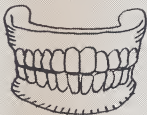
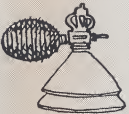




AirCap may be adhered to itself, to wood, to metal, or to corrugated board. Almost any pressure sensitive adhesive is suitable with AirCap.

#### **AirCap type selection**

The proper choice of the type of AirCap for your application depends upon the weight and fragility of your product. The types of AirCap, with the numerical designation 120, are designed to carry loads with a static bearing pressure of up to 75 lbs. per square foot. Types with the designation 240 are intended for static loads of up to 150 lbs. per square foot. For short periods of time all types of AirCap are capable of supporting loads many times these recommended loadings. Selection of the proper bubble or cell height (C— $\frac{3}{8}$ ", TH— $\frac{1}{4}$ " and D— $\frac{1}{2}$ "") is determined by the fragility of your product and the void you wish to fill. For products of the greatest fragility, AirCap of the D type should be used. AirCap type TH offers somewhat less shock protection than type D. AirCap type C is designed for packaging smaller and more intricate items than either TH or D types.

AirCap materials are "softer than air" as indicated by these stress-strain curves. Stress in pounds per square inch is plotted here in relation to strain (deflection) in percentage of the unloaded thickness produced. For example, deflection equal to 25% of the unloaded thickness of Type TH-120 is produced by a loading of 1.2 pounds per square inch. Deflection amounting to 50% of the unloaded thickness of Type C-240 is produced by a loading of 10 pounds per square inch.



Article	Grade used	Reason for use of AirCap	Packing materials replaced
 <p>Retail gift items</p>	C-120, TH-120, D-120	Freedom from lint, aesthetic appeal, lightness in weight, transparency.	Excelsior, shredded newsprint, cellulosic wadding.
 <p>Adding machines</p>	D-240	AirCap used as pad on bottom and top of box reduced material costs and breakage.	Rubberized hair.
 <p>Gauges</p>	C-120, D-120	Freedom from lint, lightness in weight, reduced breakage, reduced packaging costs.	Cellulosic wadding.
 <p>Repaired cameras</p>	C-120, D-120	Lint free, light weight, reduced packing costs through labor savings and smaller containers required, more effective cushioning, reduced breakage.	Excelsior, cellulosic wadding, polyethylene bags.
 <p>Industrial ceramics</p>	C-120, D-120	Extreme flexibility of AirCap, affording use of a single material for packaging many varied shapes, lightness in weight, effective cushioning, reduced packaging costs through labor savings.	Newspaper, cellulosic wadding, excelsior.
 <p>Printed circuit boards</p>	C-120	Freedom from lint, transparency, lightness in weight, more effective cushioning.	Polyethylene bags, cellulosic wadding, excelsior pads, corrugated die-cuts.
 <p>Dentures</p>	C-120, TH-120	Freedom from lint, cleanliness, reduced loss of chipped dentures being returned for repair.	Cotton.
 <p>Perfumes</p>	C-120 (White)	Attractive sales package, reduced breakage.	(New product).
 <p>Pharmaceutical pills</p>	C-120	Lightness in weight, clean, reduced powdering of pills, reduced packaging costs.	Cotton.
 <p>Flowers</p>	C-120, D-120	Inexpensive insulating medium, bubbles placed next to corrugated container in bulk shipment of flowers reduces spoilage of product.	Newsprint-filled insulating bags.
 <p>Deciduous fruit</p>	C-120, D-120	Transparency, effective cushioning, aesthetic appeal.	Excelsior pads, dimpled chip board.
 <p>Scientific glass apparatus</p>	C-120, D-120	Extreme flexibility, transparency, reduced breakage.	Cellulosic wadding, excelsior, shredded newsprint.



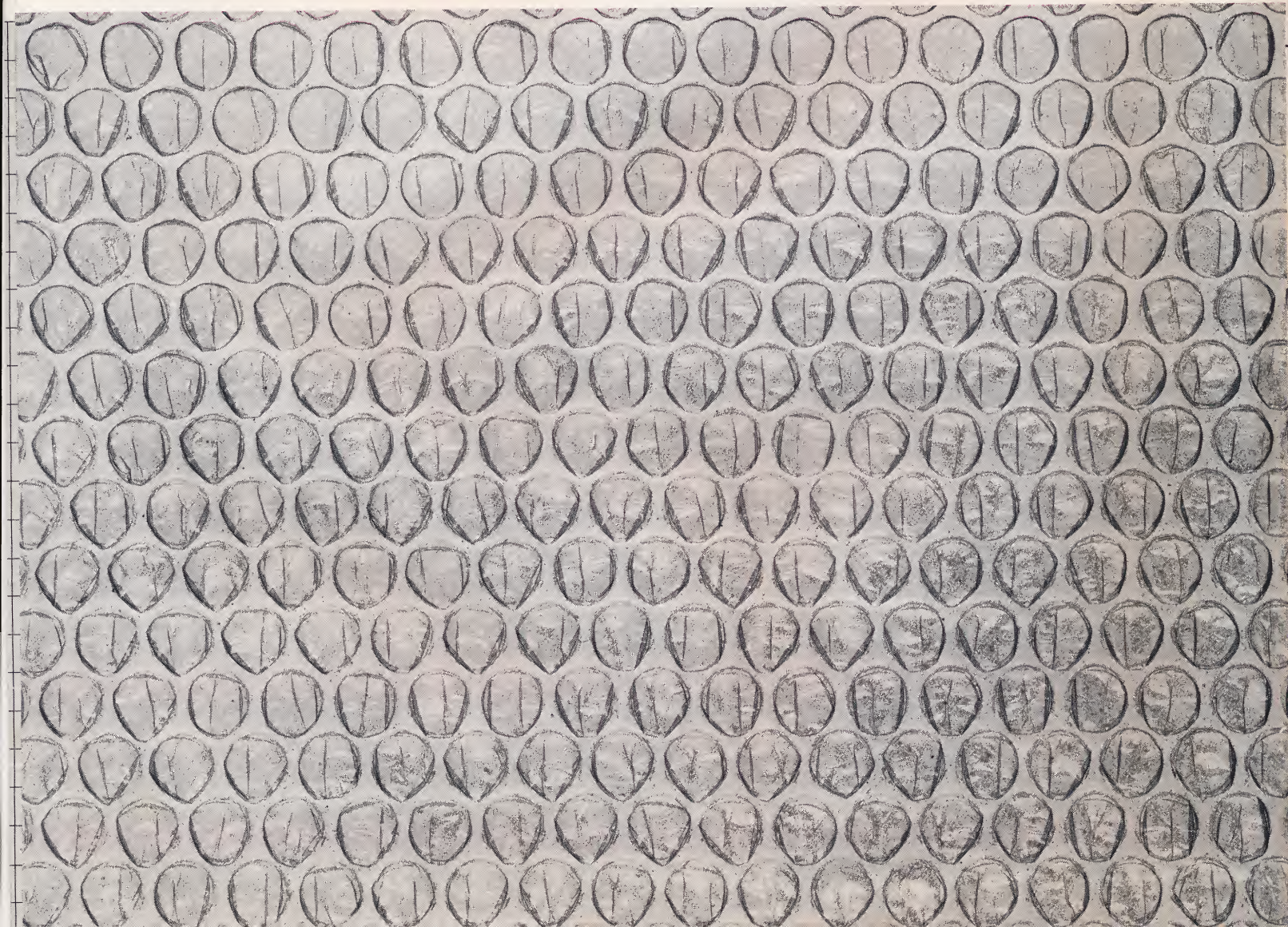
# AirCap Applications

Adding Machines  
Art Objects  
Ball Bearings  
Barometers  
Bathroom Accessories  
Beach Pads  
Books  
Bubble Gum  
Cameras  
Candles  
Candy  
Capacitors  
Centrifuges  
Ceramics  
Chemicals  
China  
Clocks  
Color Transparencies  
Computing Machines  
Connectors  
Cosmetics

Dental Equipment  
Dept. Store Breakables  
Displays  
Drugs  
Electronic Components  
Eye Glasses  
False Teeth  
Figurines  
Fire Doors  
Flowers  
Fluorescent Lamps  
Fruit  
Gauges  
Gears  
Glass Apparatus  
Graphite  
Grinding Wheels  
Guidance Systems  
Inspection Table Tops  
Jewelry  
Jewelry Cases

Laboratory Equipment  
Lamps  
Lenses  
Meters  
Needles  
Optical Parts  
Perfumes  
Pewter  
Pills  
Plaques  
Porcelain Objects  
Potentiometers  
Precision Metals  
Precision Gears  
Prescription Glasses  
Printed Circuit Cards  
Radios  
Recorders  
Records  
Resistors  
Seeds

Semiconductors  
Shelf Liners  
Shower Doors  
Silverware  
Spare Parts  
Spark Plugs  
Surgical Instruments  
Switches  
Telescopes  
Thermometers  
Thermostatic Controls  
Throw Away Seat Pads  
Time Controls  
Tombstones  
Tools & Dies  
Tote-box Liners  
Transistors  
TV Lenses  
Typewriters  
Watches  
Wire





## Thickness loss as a result of repeated compression

**Chart I**

AirCap type code	Percent (loss)
B-110	5.21
C-120	5.24
C-240	2.29
TH-120	5.18
TH-240	2.15
D-120	5.97
D-240	2.98

The percentage of thickness loss indicated is determined by compressing samples of AirCap between two sheets of glass on a hydraulic press to 50% of the unloaded thickness of the samples. The difference between the original unloaded thickness and the thickness after compressing the samples is divided by the original unloaded thickness and multiplied by 100.

## Creep of AirCap types under various loadings

**Chart II**

Type	Time	Loading of Specimens 0.1 psi      0.25 psi	
		Retention of original thickness	
B-110	1 week	95.4%	94.2%
	2 months	94.9	93.8
	7 months	93.5	90.7
	1 year	91.2	87.8
C-120	1 week	95.1%	96.3%
	2 months	92.9	92.7
	7 months	90.1	87.3
	1 year	88.0	83.8
TH-120	1 week	95.7%	95.0%
	2 months	95.1	94.9
	7 months	93.8	91.5
	1 year	92.6	88.5
D-120	1 week	97.2%	96.9%
	2 months	96.7	95.3
	7 months	94.0	89.2
	1 year	91.5	85.1

These figures indicate that AirCap made of the lightest gauge films will offer effective cushioning over extended periods. AirCap in heavier film combinations (240) has even longer useful life.

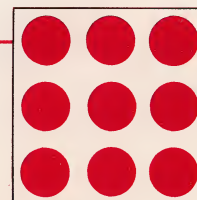
## General Information

	B 110	120 C 240	120 TH 240	120 D 240
Cell description (Shape)	Cylindrical	Cylindrical	Truncated hemisphere	Dome
(Diameter)	3/8"	3/8"	1"	1 1/4"
(Height)	1/8"	3/16"	1/4"	1/2"
Standard roll description				
Lineal ft. per roll	500	500	375	250
Square ft. in std. 48" wide roll	2000	2000	1500	1000
Density lbs./cu. ft.	1.152	1.024   2.048	0.768   1.536	0.504   0.768
pH	neutral			
Temperature limits				
Upper	180°F.			
Lower	-72°F.			
Abrasiveness	non-abrasive			
Dusting	none			
Capillarity	none			
Fungus resistance	excellent			

Note: All technical data in this brochure has been supplied by an independent testing laboratory.

## Sealed Air Corporation

179 Goffle Road/Hawthorne, New Jersey





# SEALED AIR CORPORATION

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Gentlemen:

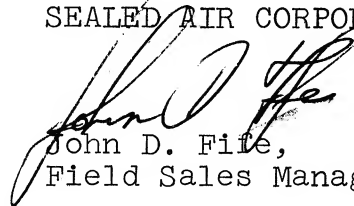
Thank you for your interest in AirCap<sup>®</sup>, the cushioning material that is revolutionizing protective packaging.

Enclosed is the material you requested. If you desire to evaluate AirCap C-120, our most popular material, we are happy to offer a sample roll 24" wide by 250 lineal feet, at \$20.00 per roll for trial purposes.

We look forward to being able to serve you, and to help solve your packaging problems. Write or call if we can be of further help.

Very truly yours,

SEALED AIR CORPORATION



John D. Fife,  
Field Sales Manager

JDF:MV  
Encs.

THE PACKAGING MATERIAL THAT CUSHIONS WITH AIR